C4725-1

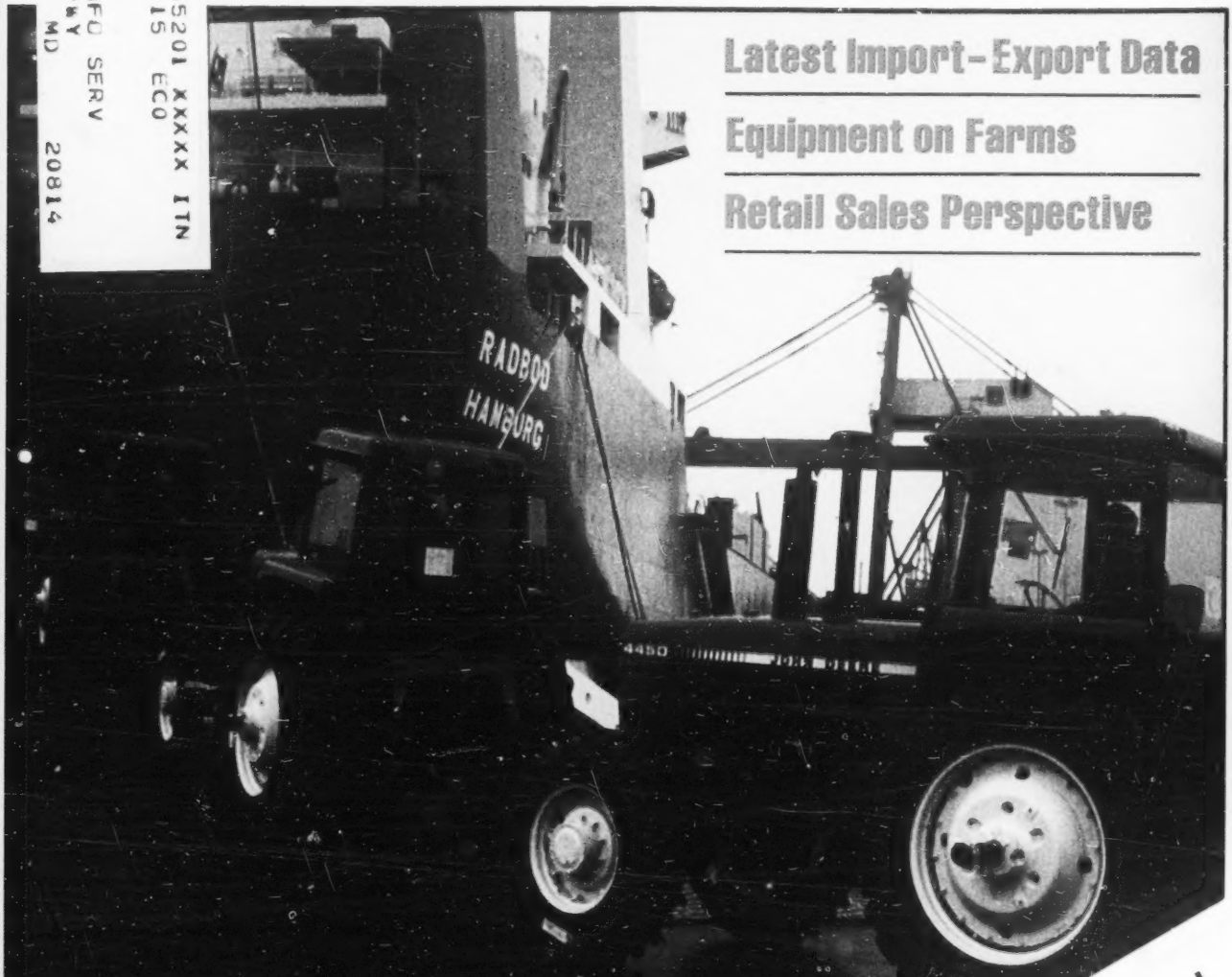
TWO DOLLARS

Implement & Tractor

magazine of the farm and industrial equipment industry

NOVEMBER 1985

48th Market Statistics Issue



Latest Import-Export Data

Equipment on Farms

Retail Sales Perspective

Ford Acquires New Holland
page 4

A20800-----SHWEA5201 XXXXX ITN
F0000008000000000 I5 ECO
ANDREA SCHWARTZ
CONGRESSIONAL INFO SERV
4520 EAST WEST HWY
BETHESDA MD 20814

IMPLEMENT & TRACTOR
Editorial, advertising
and circulation correspondence
should be addressed to:
9221 Quivira Rd.
P.O. Box 12901
Overland Park, Kan. 66212
(a suburb of Kansas City, Mo.)
Telephone (913) 888-4664
Telex: 42-4156; Answerback
Intertec OLPK

EDITORIAL
Bill Fogarty, Editor
Scott R. Nesbitt, Managing Editor
Irma Allread, Associate Editor
Anita Blattner, Graphic Designer
Pat Blanton, Editor, Product File
Jim Baumberger, Editor, Red Book

Contributing Editors:
Frank Buckingham, Agricultural Engineering
Glenn S. Hensley, Dealer Topics
Michael Williams, Western Europe

CIRCULATION
John Arnst, Director
Evelyn Rogers, Manager
Dee Manies, Reader Correspondent

ABP **A member of American Business Press**

ABC **A member of Audit Bureau of Circulation**

ADVERTISING
Don Creelman, Associate Publisher
Susan Birnbaum, Marketing Manager
Janet Baellow, Marketing Copywriter
Julie Roberts, Marketing Clerk
Doug Coonrod, Graphic Designer/Promotions
Gloria Shanahan, Production Manager
(Regional advertising sales offices listed on ad index page.)

ADMINISTRATION
R. J. Hancock, President
John Wickersham, Group Vice-President

IMPLEMENT & TRACTOR (USPS 461-750), with which is combined Farm Implement News, is published monthly except in January and March, when two issues are published, by INTERTEC PUBLISHING CORP., 9221 Quivira Rd., Overland Park, KS 66215 (a suburb of Kansas City, Mo.).

Subscription Information: Implement & Tractor is edited for persons in the farm and industrial equipment industry who function in the areas of retail sales and service, distribution sales and service, marketing, engineering, financing, manufacturing and general management. Subscription prices to qualified subscribers: U.S. one year – $10, two years – $15; elsewhere including Canada, one year – $17, two years – $25. Overseas airmail – $60 extra per year. Subscription prices to all others: U.S. one year – $34, two years – $68; elsewhere including Canada, one year – $39; two years – $78. Single copies, $2, except Annual Statistical Number, $4; Product File issue, $5; Red Book issue, $5. Adjustment necessitated by subscription termination at single copy rate. Extra charge for service on back issues. Allow 6-8 weeks for change of address and new subscriptions.

Photocopy rights: Permission to photocopy for internal or personal use is granted by Intertec Publishing Corp. for libraries and others registered with the Copyright Clearance Center (CCC), provided the base fee of $2.00 per copy of article is paid directly to CCC, 21 Congress St., Salem, MA 01970. Special requests should be addressed to John Wickersham.

ISSN 0019-2953 $2.00 + 0.00

INTERTEC PUBLISHING CORPORATION

Implement & Tractor

The business magazine of the farm and industrial equipment industry.

November 1985 • Vol. 100 • No. 13

48th Annual Statistics Issue

16: Introduction

Machines on Farms – 1985
18: Motor Vehicles and Specified Machines on Farms, 1963-1985
20: Principal Machines on Farms
26: Equipment on Canadian Farms, 1981

Retail Sales
28: Retail Sales of Selected Farm Equipment, 1983-1984
29: Retail Sales of Farm Wheel Tractors by State, 1981-1984

Imports and Exports
30: Wheel Tractor Imports by Horsepower and Country of Origin, Jan. 1981-June 1985
31: Imports by Value and Country of Origin, Jan. 1980-June 1985
32: Imports of Farm Equipment by Products, Jan. 1983-June 1985
33: Exports of Farm Equipment by Type of Product, Jan.1983-June 1985
34: Exports of Farm Equipment by Value and Country of Destination, Jan. 1983-June 1985

8: **FIEI Convenes.** At the annual convention, held in Vancouver this year, the ag outlook was "more of the same," the industrial forecast was "steady, strong."

38: **Tractor Fuel Economy Ratings.** Last installment of a three-part series that shows how tractors did in various Nebraska tractor tests.

42: **Case Upgrades Tractors, Combines.** A new "constant drive" model tractor and a new combine series are announced by Case International.

43: **FDO Report: Dealers and Their Associations.** Results of I&T's August For Dealers Only survey might provide some guidance for association convention planning committees.

On the cover...photo courtesy of Deere & Co.

DEPARTMENTS

I&T Update 4
Editor's Notebook 6
What's New 40
Auction Prices 44
Brown Pages 45
Classified Ads 50
Index to Advertisers 50

Copyright 1985 by INTERTEC PUBLISHING CORP. All rights reserved.
This publication is indexed in Bell & Howell's Farm & Garden Index.

Second class postage paid at Shawnee Mission, KS 66201.
Postmaster: Return Form 3579 to Implement & Tractor, Box 12954, Overland Park, KS 66212.

I&T Update

The Ford-Sperry New Holland Deal: Some Dealers, Marketers Comment

The Oct. 10 announcement by Ford Motor Co. that it will buy the New Holland assets of Sperry Corp. brought to an end years of speculation and false alarms concerning New Holland.

Donald E. Petersen, Ford's chairman, said his company will pay Sperry approximately $330 million for the assets, including receivables, facilities throughout the world and trademarks, and assume $110 million in liabilities.

The transaction is subject to getting anti-trust clearances from the U.S. government, which will probably take until the end of the year to be wound up, according to a Ford spokesman. In addition, the acquisition includes operations and properties in other nations in which approvals are necessary. Ford Tractor, based in Troy, Mich., has tractor production units in Belgium, France, the United Kingdom and Brazil, as well as in Romeo, Mich. Sperry New Holland has production facilities at its headquarters in New Holland, Pa., at Mountville and Belleville, Pa., Grand Island, Neb., and in Brazil, Belgium, France and Australia.

(On Oct. 24, New Holland advised employees at its Lexington combine plant that its closing last June will be permanent. As soon as tooling, materials, etc., can be transferred to the Grand Island plant, where the company makes headers and other equipment, combine production will begin.)

Ford Tractor Operations had worldwide sales in 1984 of $1.25 billion. In the fiscal year ended Mar. 31, Sperry New Holland had sales of $715 million. Its profit, before interest, taxes and corporate expense was $34 million in 1984, down from 1983's $72 million and the $169 million peak of 1980.

Petersen said, "Ford contemplates no immediate changes, including no major changes in the New Holland product line. Over time, of course, we will look for ways to improve both organizations while taking the needs of employees, dealers and customers into full consideration."

The *Wall Street Journal* quoted a Ford official as saying that "down the road, there will be a consolidation of dealers."

Ford Tractor has approximately 1,400 franchised dealers in North America. There are about 1,800 dealers handling Sperry New Holland lines, and about 400 of the Ford dealers are included among them. Most New Holland dealerships also represent one or more of the major North American tractor lines, and there are about 60 New Holland company-owned retail stores.

Sperry New Holland does not have conventional written franchise agreements with its dealers, except for its line of skid-steer loaders. Dealers and the company sign sales contracts, which set out terms and conditions of payment, and on the back of these contracts the company states what is basically expected of the dealer. According to a Sperry New Holland spokesman, when the terms of existing contracts are

(Continued on page 10)

Tell Us What You Think!

Your view of the Ford buyout of Sperry New Holland is important. Please take a moment and jot your thoughts on the special postage-paid survey form inside the front cover of this issue. I&T will report the results of that special reaction survey early next year.

U.S. Retail Sales: September a Downer

Unit retail sales in the U.S. were down in September for all product categories except tractors under 100 hp. The strength of sales of tractors under 40 hp, all imports, put the over-all tractor sales total on the positive side.

Unit Retail Sales

	September			January-September		
	1985	1984	Pct. Change	1985	1984	Pct. Change
Farm Wheel Tractors:						
2-wheel drive						
Under 40 hp	4,393	3,499	+25.6	46,177	40,163	+15.0
40-99 hp	2,501	2,360	+ 6.0	29,426	29,392	+ .1
100-139 hp	369	674	-45.3	5,952	7,080	-15.9
Over 140 hp	877	1,459	-39.9	7,989	10,415	-23.3
Total 2-wheel drive	**8,140**	**7,992**	**+ 1.9**	**89,544**	**87,050**	**+ 2.9**
4-wheel drive						
Under 200 hp	66	74	-10.8	636	1,165	-45.4
Over 200 hp	115	177	-35.0	1,270	1,926	-34.1
Total 4-wheel drive	**181**	**251**	**-27.9**	**1,906**	**3,091**	**-38.3**
Total All Tractors	**8,321**	**8,243**	**+ .9**	**91,450**	**90,141**	**+ 1.5**
S-P Combines	1,092	1,391	-21.5	4,907	6,566	-25.3
Balers (under 200-lb. bales)	528	666	-20.7	6,273	7,369	-14.9
Forage Harvesters (shear-bar type)	430	583	-26.2	1,756	2,392	-26.6
Mower-Conditioners	905	1,049	-13.7	9,810	11,514	-14.8

Canadian Retail Volume Improved in Some Product Areas

Through the first nine months of 1985, Canadian retail sales of farm equipment have shown moderate improvement over 1984, according to the flash report of the Canadian Farm & Industrial Equipment Institute.

Total tractor volume is up 6 per cent to 14,182 units; self-propelled combines are exactly even with the 1984 pace at 1,643 units; large balers are up 18 per cent at 1,984 machines; pull-type combines are up 5 per cent at 712; self-propelled swathers are up 6 per cent at 1,705.

Within the tractor group, only four-wheel-drive sales are below the 1984 level—down 9 per cent to 1,624 units. Sales of tractors under 40 hp are up 13 per cent at 3,132; the 40-99-hp group is up 4 per cent at 6,004; two-wheelers over 100 hp are up 13 per cent at 3,422.

Downside items on the CFIEI flash report for the year to date: balers (under 200 lbs.), down 14 per cent at 1,411; mower-conditioners, down 3 per cent at 1,909; forage harvesters, down 18 per cent at 356; pull-type swathers, down 4 per cent at 1,853.

I&T's 48TH MARKET STATISTICS ISSUE

■INTEREST in the international aspects of the farm and industrial equipment business has never been stronger. Thus, we're particularly proud of having presented an up-to-date assembly of export and import numbers over recent years for the industry.

Over the past decade, the U.S. farm equipment industry has posted a total favorable balance of trade of $6.77 billion. The balance peaked in 1981 at $1.4 billion at a time when exports were moving up in value and imports were declining.

That trend subsequently has reversed itself. The balance in 1984 was $506 million; when 1985 information is available, the balance will likely be in the $300 million range, which was the level in 1979.

The U.S. has had two major farm equipment export strengths—big tractors headed for markets such as Canada and Australia, and parts for tractors and other equipment going to the European subsidiary factories of North American companies. In recent years, as world grain surpluses have affected farm prices, demand for big tractors in grain producing areas has gone down. Meanwhile, European customers for U.S. tractor and farm equipment parts have been sourcing more of their components elsewhere.

Meanwhile, value of tractors, tractor parts, and other farm equipment and parts imports have increased. The rise has been moderate, however, as the strength of the U.S. dollar has made it easier to pay for such imports and as domestic demand for farm equipment in general has been soft.

A brief summary of exports and imports in millions of dollars:

Year	Exports	Imports	Balance
1980	2,531	1,773	858
1981	2,942	1,550	1,392
1982	2,378	1,180	1,199
1983	2,014	1,347	667
1984	2,235	1,729	506
1985*	982	830	152

*Through June 30

Industry shipments data, for many years a feature of I&T's Market Statistics Issue, has tended to arrive in some recent years too late for inclusion, and such is the case this year with regard to the 1984 numbers. Last year, the information arrived too late for inclusion in the November MSI but was received in time for December. We hope we'll be able to get the data in the December issue this year, but can make no promises as we go to press.

Principal machines on farms, which includes census totals by state and I&T estimates as of July 1, 1985, reflects the very gradual decline in equipment populations. For instance, the tractor population in the North Central states, which the Census of Agriculture of 1978 indicated was 2.42 million, is now estimated at 2.254 million, a decline of less than 7 per cent.

Total tractors on U.S. farms was 4.623 million in 1978; today, the total is 4.476 million, a decline of only 4 per cent. I&T

R.M.Wade&Co.
Distribution Division
(Div. of the Corp. of R. M. Wade & Co.)
Box 8769
Portland, OR 97208

STOWE
Hardware & Supply Co.
1300-30 West Thirteenth Street
Kansas City, MO 64101

Hamilton Equipment, Inc.
567 South Reading Road
Ephrata, PA 17522

HOWARD S. CRANE, INC.
ROUTE 365 • ROME ONEIDA ROAD
Oneida, NY 13421

CPS distributors, inc.
Distributors – Importers
560 South Lipan Street
Denver, CO 80223

The Southern Plow Co.
1202-14
N. Industrial Blvd.
Dallas, TX 75207

J.S. WOODHOUSE CO. INC.
1314 Union Street
West Springfield, MA 01089

TRI - STATE DISTRIBUTORS
FARM MACHINERY SPECIALTIES
Highway 70 East
Statesville, NC 28677

WARE
WARE IMPLEMENT DISTRIBUTORS
Box 6773
San Antonio, TX 78209

Motor Vehicles and Specified Machines on U.S. Farms and Average Prices of Wheel Tractors, January 1, Designated Years[1]

Year	Tractors (exclusive of steam & garden)[2] Thousands	Motor Trucks Thousands	Grain Combines Thousands	Corn Pickers and Picker Shellers Thousands	Pick-up Balers Thousands	Field Forage Harvesters Thousands	Garden Tractors and Motor Tillers[3] Thousands	Wheel Tractors Wholesale Prices[4] Per Unit Dollars	Horsepower Dollars
1963	4,778	2,925	940	720	718	307	500	$ 3,046	$ 53
1964	4,786	2,970	920	705	734	312	513	$ 3,443	$ 53
1965	4,787	3,030	910	690	751	316	699	$ 3,541	$ 56
1966	4,783	3,017	888	686	752	316	725	$ 3,886	$ 58
1967	4,786	3,009	867	680	748	319	750	$ 4,257	$ 62
1968	4,766	3,016	847	673	739	321	770	$ 4,709	$ 66
1969	4,712	3,004	820	657	725	314	790	$ 4,976	$ 71
1970	4,619	2,978	790	635	708	304	805	$ 5,560	$ 76
1971	4,562	2,985	760	629	698	309	815	$ 6,190	$ 80
1972	4,509	2,993	725	625	687	315	825	$ 6,486	$ 84
1973	4,477	3,006	703	618	680	324	835	$ 6,953	$ 85
1974	4,478	3,020	685	618	677	332	850	$ 7,294	$ 86
1975	4,463	3,032	666	615	666	337	870	$ 8,459	$ 91
1976	4,434	3,043	647	610	642	342	890	$11,220	$112
1977	4,381	3,052	630	605	614	346	905	$12,692	$124
1978	4,350	3,054	615	600	595	345	917	$13,431	$144
1979	4,623	3,350	655	596	744	295	927	$16,512	$149
1980	4,598	3,367	653	592	759	293	933	$18,139	$166
1981	4,573	3,385	650	587	774	291	938	$23,308	$199
1982	4,547	3,405	647	582	788	288	942	$25,941	$204
1983	4,520	3,427	644	576	799	285	944	$33,647	$234
1984	4,497	3,449	642	569	810	282	945	$35,590	$245
1985	4,480	3,467	640	561	822	280	942	$39,514	$288

[1]SOURCE: Reports of the USDA and the Bureau of the Census. On-farm data after 1970, except 1975 and 1979, are estimated by I&T.
[2]Consists of Wheel and Crawler Tractors.
[3]Motor Tillers included after 1964.
[4]Estimated at wholesale level by dividing **Value of Manufacturers' Shipments** by **Units Shipped** and by **Maximum Belt Horsepower**, data are published in "Current Industrial Reports" of the Bureau of the Census.
Note: Data from the 1978 Census (Jan. 1, 1979 above) and later years, reflect changes in sample coverage and are not fully comparable with earlier years.

BOMFORD FLAIL CUTTERS FOR BETTER DITCH AND SLOPE MAINTENANCE

MAGNUM FLAIL RANGE

10ft-17ft reach highway verge cutters with mid-mount flail head for safety and 4ft or 5ft cutting widths for output.

FROM THE RANGE OF BOMFORD FLAIL MOWERS designed and manufactured for the tough service demanded by users throughout the world.

Write In (11) on Reply Card

Principal Machines on Farms – 1985

STATE	WHEEL TRACTORS 1978 Census Number	WHEEL TRACTORS 1982 Census Number	WHEEL TRACTORS Estimated July 1, 1985 Number	SELF-PROPELLED COMBINES 1978 Census Number	SELF-PROPELLED COMBINES 1982 Census Number	SELF-PROPELLED COMBINES Estimated July 1, 1985 Number	CORN HEADS 1978 Census Number	CORN HEADS 1982 Census Number	CORN HEADS Estimated July 1, 1985 Number
Maine	13,741	13,569	13,470	388	320	280	183	181	180
New Hampshire	4,877	5,097	5,220	14	8	6	64	50	45
Vermont	14,637	15,274	15,570	156	76	65	346	374	390
Massachusetts	9,840	9,956	10,000	26	23	21	113	145	160
Rhode Island	1,462	1,364	1,300	13	6	5	17	13	12
Connecticut	7,865	8,421	8,700	86	53	43	157	98	83
New York	120,215	119,498	119,100	5,775	6,030	6,150	3,401	3,904	4,150
New Jersey	20,655	20,554	20,500	1,086	1,011	960	532	593	620
Pennsylvania	137,998	136,505	135,700	9,674	9,707	9,720	4,409	5,408	5,900
Delaware	8,348	8,012	7,860	1,314	1,342	1,360	1,003	1,006	1,010
Maryland	36,251	36,951	37,300	3,518	3,279	3,150	2,732	2,840	2,900
NORTHEAST	**375,889**	**375,201**	**374,720**	**22,050**	**21,855**	**21,760**	**12,957**	**14,612**	**15,450**
Ohio	198,865	193,367	190,400	33,449	33,200	33,000	24,438	26,403	27,400
Indiana	176,767	167,563	162,600	37,402	34,646	33,200	32,638	31,391	30,900
Illinois	277,604	262,112	257,000	63,230	61,411	60,500	55,793	55,636	55,500
Iowa	323,132	305,334	297,000	55,586	57,726	59,200	53,030	57,046	59,000
Missouri	198,225	193,758	191,800	33,378	32,957	32,700	23,056	21,834	21,200
CORN BELT	**1,174,593**	**1,122,134**	**1,098,800**	**223,045**	**219,940**	**218,600**	**188,955**	**192,310**	**194,000**
Michigan	148,063	146,655	146,100	18,919	21,060	21,800	11,076	13,583	15,000
Wisconsin	252,594	243,827	239,700	18,262	19,215	19,700	8,458	11,939	13,900
Minnesota	277,920	264,581	258,400	44,841	45,847	46,300	27,197	31,098	33,200
LAKE STATES	**678,577**	**655,063**	**644,200**	**82,022**	**86,122**	**87,800**	**46,731**	**56,620**	**62,100**
North Dakota	120,191	108,103	102,800	30,782	27,546	26,500	1,619	2,708	3,200
South Dakota	111,485	105,699	101,400	16,503	16,961	17,200	7,759	9,606	10,800
Nebraska	175,569	164,308	160,200	35,083	34,032	33,500	24,623	25,484	26,400
Kansas	157,327	149,870	146,300	47,142	46,662	46,400	9,150	8,321	7,600
GREAT PLAINS	**564,572**	**527,980**	**510,700**	**129,510**	**125,201**	**123,600**	**43,151**	**46,119**	**48,000**
West Virginia	24,901	27,110	28,200	479	562	640	265	471	520
Kentucky	157,432	163,176	165,400	10,568	11,466	12,000	8,382	9,924	10,730
Tennessee	120,161	126,365	130,500	10,765	11,227	11,500	5,581	6,508	7,000
Virginia	83,836	88,511	90,300	5,878	6,224	6,400	4,255	5,061	5,400
North Carolina	145,863	131,488	127,300	13,297	13,820	12,500	10,326	10,618	10,740
APPALACHIAN	**532,193**	**536,650**	**541,700**	**40,987**	**42,299**	**43,040**	**28,809**	**32,582**	**34,390**
South Carolina	47,967	44,338	42,200	6,420	6,263	6,150	3,854	3,808	3,800
Georgia	79,031	75,505	73,500	9,589	8,980	8,700	7,302	6,438	6,000
Florida	51,099	52,346	52,900	1,726	1,742	1,750	1,112	1,307	1,400
Alabama	69,438	66,330	64,800	6,660	6,935	7,100	3,383	3,630	3,750
SOUTHEAST	**247,535**	**238,519**	**233,400**	**24,395**	**23,920**	**23,700**	**15,651**	**15,183**	**14,950**
Mississippi	72,483	70,139	69,200	9,911	9,695	9,600	527	861	1,020
Louisiana	58,373	56,883	56,200	9,624	8,468	7,850	377	286	250
Arkansas	84,108	81,556	80,400	13,960	12,891	12,300	292	221	200
DELTA STATES	**214,964**	**208,578**	**205,800**	**33,495**	**31,054**	**29,750**	**1,196**	**1,368**	**1,470**
Oklahoma	99,771	99,934	100,000	17,647	17,299	17,100	822	600	500
Texas	262,886	264,740	265,600	23,026	21,049	19,900	3,628	3,913	4,050
SOUTHERN PLAINS	**362,657**	**364,674**	**365,600**	**40,673**	**38,348**	**37,000**	**4,450**	**4,513**	**4,550**
Montana	54,737	54,666	54,600	13,180	12,038	11,300	101	89	85
Idaho	53,552	50,575	49,200	9,843	9,309	9,000	414	344	330
Wyoming	19,322	20,673	21,300	1,999	1,991	1,990	171	221	250
Colorado	58,331	56,141	55,300	8,404	7,994	7,800	2,397	2,618	2,700
New Mexico	16,601	17,455	17,800	1,513	1,346	1,240	246	308	340
Arizona	11,956	12,262	12,410	509	369	300	60	94	110
Utah	21,145	21,613	21,800	1,743	1,591	1,490	186	225	250
Nevada	5,142	5,160	5,170	263	234	210	3	19	25
MOUNTAIN STATES	**240,786**	**238,545**	**237,580**	**37,454**	**34,872**	**33,330**	**3,578**	**3,918**	**4,090**
Washington	53,301	59,377	62,200	8,431	8,314	8,250	470	558	600
Oregon	48,158	53,243	55,800	6,335	6,235	6,170	*	209	220
California	129,480	139,735	145,500	6,270	6,102	6,000	1,016	1,123	1,180
PACIFIC	**230,939**	**252,355**	**263,500**	**21,036**	**20,651**	**20,420**	**1,486**	**1,890**	**2,000**
TOTAL	**4,622,705**	**4,519,699**	**4,476,000**	**654,667**	**644,262**	**639,000**	**346,964**	**369,115**	**381,000**

*Not reported separately.

Principal Machines on Farms – 1985

STATE	PICK-UP BALERS 1978 Census Number	PICK-UP BALERS 1982 Census Number	PICK-UP BALERS Estimated July 1, 1985 Number	FIELD FORAGE HARVESTERS[1] 1978 Census Number	FIELD FORAGE HARVESTERS[1] 1982 Census Number	FIELD FORAGE HARVESTERS[1] Estimated July 1, 1985 Number	MOWER CONDITIONERS[2] 1978 Census Number	MOWER CONDITIONERS[2] 1982 Census Number	MOWER CONDITIONERS[2] Estimated July 1, 1985 Number
Maine	2,609	3,047	3,250	1,309	1,181	1,120	2,023	2,353	2,550
New Hampshire	1,254	1,259	1,260	545	544	540	889	960	1,010
Vermont	4,082	4,167	4,200	2,707	2,569	2,470	3,777	3,866	3,920
Massachusetts	1,732	1,704	1,680	1,092	1,083	1,080	1,472	1,533	1,570
Rhode Island	181	205	215	113	93	90	124	146	160
Connecticut	1,509	1,508	1,500	804	773	760	1,063	1,318	1,470
New York	28,853	28,078	27,600	20,298	19,040	18,400	25,390	25,603	25,720
New Jersey	2,194	2,260	2,300	1,093	1,165	1,200	2,275	2,386	2,450
Pennsylvania	37,288	37,257	37,200	18,891	18,078	17,500	29,419	29,456	29,480
Delaware	568	531	515	269	249	240	587	519	480
Maryland	5,581	5,719	5,800	2,852	2,670	2,600	4,653	5,136	5,390
NORTHEAST	**85,851**	**85,735**	**85,520**	**49,973**	**47,465**	**46,000**	**71,672**	**73,276**	**74,200**
Ohio	38,496	39,754	40,300	11,209	11,090	11,050	26,997	26,143	25,750
Indiana	23,838	23,947	24,000	6,912	6,917	6,920	15,733	15,583	15,480
Illinois	30,632	30,463	30,300	11,557	9,972	9,200	21,173	21,867	22,250
Iowa	47,389	47,776	48,000	19,393	17,638	16,800	26,375	28,401	29,500
Missouri	43,981	48,662	50,500	8,704	8,055	7,700	23,469	26,527	28,140
CORN BELT	**184,336**	**190,602**	**193,100**	**57,775**	**53,672**	**51,670**	**113,747**	**118,521**	**121,120**
Michigan	24,536	25,051	25,300	12,704	11,809	11,300	20,696	21,055	21,300
Wisconsin	58,443	58,042	57,800	43,154	43,880	44,300	51,830	51,630	51,500
Minnesota	50,165	51,038	51,500	23,341	23,803	24,000	31,714	32,050	32,200
LAKE STATES	**133,144**	**134,131**	**134,600**	**79,199**	**79,492**	**79,600**	**104,240**	**104,735**	**105,000**
North Dakota	15,180	16,628	17,300	5,538	4,839	4,600	6,315	6,181	6,100
South Dakota	14,174	17,966	19,800	11,280	10,568	10,200	5,673	6,958	17,050
Nebraska	16,968	18,906	20,000	13,870	12,538	11,900	14,740	15,497	16,000
Kansas	29,222	31,998	33,500	10,778	9,367	8,650	17,144	18,932	19,800
GREAT PLAINS	**75,544**	**85,498**	**90,600**	**41,466**	**37,312**	**35,350**	**43,872**	**47,568**	**58,950**
West Virginia	9,119	10,550	11,300	2,094	2,323	2,420	5,035	6,033	6,550
Kentucky	31,575	35,143	37,100	7,752	7,910	8,010	23,656	23,805	23,900
Tennessee	22,028	26,506	28,800	5,202	6,313	6,900	16,834	18,734	25,300
Virginia	17,932	21,805	23,600	6,075	6,209	6,280	12,404	14,659	16,100
North Carolina	12,461	12,752	12,900	4,204	3,502	3,100	10,577	10,888	11,100
APPALACHIAN	**93,115**	**106,756**	**113,700**	**25,327**	**26,257**	**26,710**	**68,506**	**74,119**	**82,950**
South Carolina	4,404	4,823	5,030	1,369	1,260	1,200	3,370	4,033	4,400
Georgia	8,671	10,407	11,230	2,652	2,717	2,750	9,176	9,465	9,600
Florida	2,787	3,754	4,250	903	861	850	6,406	7,591	8,300
Alabama	10,068	11,322	12,000	2,102	2,112	2,120	8,349	8,212	8,150
SOUTHEAST	**25,930**	**30,306**	**32,510**	**7,026**	**6,950**	**6,920**	**27,301**	**29,301**	**30,450**
Mississippi	8,286	10,509	11,600	2,003	1,927	1,900	7,294	7,949	8,300
Louisiana	5,666	6,425	6,800	1,299	1,327	1,340	6,587	6,698	6,770
Arkansas	10,783	13,994	15,700	1,882	1,634	1,500	8,366	10,035	10,950
DELTA STATES	**24,735**	**30,928**	**34,100**	**5,184**	**4,888**	**4,740**	**22,247**	**24,682**	**26,020**
Oklahoma	19,242	22,690	24,400	2,420	2,491	2,540	14,990	17,107	18,300
Texas	26,382	33,736	36,500	5,339	5,109	4,980	32,449	39,629	30,200
SOUTHERN PLAINS	**45,624**	**56,426**	**60,900**	**7,759**	**7,600**	**7,520**	**47,439**	**56,736**	**48,500**
Montana	11,692	12,468	12,900	2,086	2,429	2,600	7,304	8,102	8,500
Idaho	12,862	12,210	11,900	2,391	2,384	2,380	9,029	8,515	8,250
Wyoming	4,468	5,066	5,400	1,261	1,222	1,200	3,433	3,904	4,160
Colorado	10,374	10,365	10,350	4,355	3,503	3,100	7,259	7,040	6,950
New Mexico	3,252	3,403	3,490	774	802	820	2,317	2,395	2,450
Arizona	1,004	1,042	1,050	298	348	370	780	861	910
Utah	6,922	6,965	6,980	1,874	1,978	2,040	5,098	5,547	5,800
Nevada	1,470	1,598	1,650	353	437	480	1,245	1,314	1,360
MOUNTAIN STATES	**52,044**	**53,117**	**53,720**	**13,392**	**13,103**	**12,990**	**36,465**	**37,678**	**38,380**
Washington	8,717	9,518	9,900	2,890	3,060	3,150	8,107	9,838	10,800
Oregon	8,443	9,730	10,400	2,602	2,555	2,530	7,033	8,528	9,330
California	6,358	6,725	6,950	2,530	2,715	2,820	7,558	9,299	10,300
PACIFIC	**23,518**	**25,973**	**27,250**	**8,022**	**8,330**	**8,500**	**22,698**	**27,665**	**30,430**
TOTAL	**743,841**	**799,472**	**826,000**	**295,123**	**285,069**	**280,000**	**558,187**	**594,281**	**616,000**

[1]Shear-bar type. [2]Does not include windrowers with conditioning rolls.

Principal Machines on Farms – 1985

STATE	POWER ELEVATORS Estimated July 1, 1985 Number	MANURE SPREADERS Estimated July 1, 1985 Number	CORN & COTTON PLANTERS Estimated July 1, 1985 Number	GRAIN DRILLS Estimated July 1, 1985 Number	MOLDBOARD PLOWS Estimated July 1, 1985 Number	SIDE DELIVERY RAKES Estimated July 1, 1985 Number	POWER TRACTOR MOWERS* Estimated July 1, 1985 Number
Maine	4,800	2,880	300	800	7,950	5,460	6,250
New Hampshire	2,270	1,840	270	60	2,720	2,320	2,850
Vermont	7,290	5,790	1,500	300	9,190	6,900	8,500
Massachusetts	3,270	2,100	820	110	5,500	3,280	3,760
Rhode Island	460	250	100	30	640	300	310
Connecticut	3,810	2,250	960	80	5,220	2,320	3,300
New York	63,500	37,000	18,450	25,150	72,600	44,600	52,300
New Jersey	5,580	2,220	2,250	2,300	15,170	3,740	4,320
Pennsylvania	67,600	38,300	31,520	37,600	92,300	46,000	58,000
Delaware	3,590	1,620	1,980	1,900	5,820	980	1,000
Maryland	14,900	7,730	8,080	8,400	26,140	8,400	10,800
NORTHEAST	**177,070**	**101,980**	**66,230**	**76,730**	**243,250**	**124,300**	**151,390**
Ohio	116,100	51,800	59,800	60,000	148,500	52,500	61,200
Indiana	115,200	45,800	61,400	48,700	126,800	38,700	48,000
Illinois	175,800	67,000	89,800	61,500	164,500	50,300	67,500
Iowa	184,700	91,300	99,800	57,300	196,000	85,000	101,500
Missouri	82,100	51,400	47,700	49,500	138,100	50,000	82,200
CORN BELT	**673,900**	**307,300**	**358,500**	**277,000**	**773,900**	**276,500**	**360,400**
Michigan	82,300	33,800	36,300	48,300	119,800	41,100	45,500
Wisconsin	129,800	77,600	64,000	61,500	153,400	86,000	98,200
Minnesota	145,400	70,200	77,000	71,200	165,400	83,000	91,500
LAKE STATES	**357,500**	**181,600**	**177,300**	**181,000**	**438,600**	**210,100**	**235,200**
North Dakota	70,500	19,100	14,400	56,400	60,700	21,700	38,700
South Dakota	62,600	26,700	28,900	31,900	60,800	22,100	45,200
Nebraska	97,000	40,900	43,200	41,000	86,500	33,600	52,300
Kansas	103,500	34,100	21,200	66,600	87,800	34,500	51,800
GREAT PLAINS	**333,600**	**120,800**	**107,700**	**195,900**	**295,800**	**111,900**	**188,000**
West Virginia	6,250	7,730	5,000	3,490	18,100	9,150	17,800
Kentucky	24,100	25,500	36,800	10,780	102,800	29,800	48,000
Tennessee	14,850	18,600	49,700	13,450	66,600	23,800	51,400
Virginia	18,350	19,900	25,000	16,350	62,300	22,800	31,600
North Carolina	20,100	19,500	70,100	22,000	59,800	15,500	32,100
APPALACHIAN	**83,650**	**91,230**	**186,600**	**66,070**	**309,600**	**101,050**	**180,900**
South Carolina	4,570	3,600	29,500	11,340	10,550	5,830	9,850
Georgia	13,640	6,100	37,300	9,700	29,400	10,400	16,580
Florida	3,620	1,100	5,710	1,680	19,050	1,880	3,730
Alabama	11,200	4,070	40,600	6,820	22,050	7,380	16,200
SOUTHEAST	**33,030**	**14,870**	**113,110**	**29,540**	**81,050**	**25,490**	**46,360**
Mississippi	7,660	4,650	50,500	8,030	27,700	9,480	21,200
Louisiana	2,500	2,680	17,100	7,170	20,800	6,120	10,700
Arkansas	9,350	6,530	20,800	12,800	45,800	10,200	20,500
DELTA STATES	**19,510**	**13,860**	**88,400**	**28,000**	**94,300**	**25,800**	**52,400**
Oklahoma	24,950	8,480	8,880	31,300	77,000	19,400	32,000
Texas	39,700	16,100	53,400	48,800	87,700	22,500	46,500
SOUTHERN PLAINS	**64,650**	**24,580**	**62,280**	**80,100**	**164,700**	**41,900**	**78,500**
Montana	27,750	10,000	1,050	21,100	27,300	13,650	21,200
Idaho	24,230	12,470	2,560	15,380	33,100	16,000	21,100
Wyoming	4,980	4,280	920	4,100	15,550	5,150	6,060
Colorado	24,970	12,730	6,000	15,300	26,000	14,000	15,500
New Mexico	2,550	2,080	3,050	1,940	8,720	4,150	4,650
Arizona	1,790	880	1,850	1,410	3,350	1,400	2,000
Utah	9,970	6,900	1,630	5,450	15,050	9,230	10,700
Nevada	930	1,020	60	320	2,530	1,480	1,540
MOUNTAIN STATES	**97,170**	**50,360**	**17,120**	**65,000**	**131,600**	**65,060**	**82,750**
Washington	21,550	13,150	1,770	17,130	36,700	13,400	20,500
Oregon	17,370	11,610	1,110	11,670	35,700	11,800	19,300
California	24,000	13,660	8,880	8,860	59,800	13,700	23,300
PACIFIC	**62,920**	**38,420**	**11,760**	**37,660**	**132,200**	**38,900**	**63,100**
TOTAL	**1,903,000**	**945,000**	**1,189,000**	**1,037,000**	**2,665,000**	**1,021,000**	**1,439,000**

*Cutter bar type only.

Principal Machines on Farms – 1985

STATE	MOTOR TRUCKS 1978 Census 1,000's	MOTOR TRUCKS 1982 Census 1,000's	MOTOR TRUCKS Estimated July 1, 1985 1,000's	INTERNAL COMBUSTION ENGINES[1] Estimated July 1, 1985 Number	CHAIN SAWS Estimated July 1, 1985 Number
Maine	12.3	12.2	12.2	1,490	7,350
New Hampshire	3.8	4.1	4.3	1,400	2,440
Vermont	6.6	7.5	8.0	1,950	6,100
Massachusetts	9.0	9.4	9.6	2,010	4,450
Rhode Island	1.3	1.3	1.3	210	620
Connecticut	6.6	6.8	6.9	1,770	3,740
New York	57.6	60.5	62.2	23,200	49,100
New Jersey	14.4	15.2	15.7	2,590	5,870
Pennsylvania	63.8	66.1	67.3	22,800	43,000
Delaware	6.2	6.2	6.2	1,040	2,490
Maryland	22.8	25.9	27.6	5,100	12,050
NORTHEAST	**204.4**	**215.2**	**221.3**	**63,560**	**137,210**
Ohio	107.1	107.8	108.3	21,700	59,900
Indiana	114.4	112.2	112.3	22,300	64,200
Illinois	150.6	150.6	150.6	33,200	69,700
Iowa	144.0	147.7	149.6	35,200	55,400
Missouri	155.9	159.7	162.1	36,000	92,700
CORN BELT	**672.0**	**678.0**	**682.9**	**148,400**	**341,900**
Michigan	77.4	80.3	82.1	19,900	44,770
Wisconsin	98.0	99.5	100.2	38,300	90,900
Minnesota	144.1	143.8	143.5	51,600	65,000
LAKE STATES	**319.5**	**323.6**	**325.8**	**109,800**	**200,670**
North Dakota	107.7	101.1	97.2	39,000	4,200
South Dakota	66.0	68.0	69.0	25,900	3,230
Nebraska	118.6	118.9	119.1	35,200	13,820
Kansas	160.8	159.4	158.3	45,800	22,800
GREAT PLAINS	**453.1**	**447.4**	**443.6**	**145,900**	**44,050**
West Virginia	19.2	20.5	21.2	5,400	21,250
Kentucky	119.3	125.2	129.0	17,700	43,900
Tennessee	96.4	104.7	109.9	13,500	57,900
Virginia	62.6	68.0	70.8	13,100	47,900
North Carolina	106.2	103.3	101.3	17,000	85,800
APPALACHIAN	**403.7**	**421.7**	**432.2**	**66,700**	**256,750**
South Carolina	36.1	34.6	33.7	6,760	24,240
Georgia	74.3	72.6	71.7	13,950	33,400
Florida	49.4	51.2	52.2	13,500	7,630
Alabama	68.6	67.4	66.7	11,410	31,460
SOUTHEAST	**228.4**	**225.8**	**224.3**	**45,620**	**96,730**
Mississippi	58.0	59.0	59.6	10,970	37,150
Louisiana	44.9	44.3	44.1	13,080	20,370
Arkansas	80.7	79.3	78.5	14,830	31,200
DELTA STATES	**183.6**	**182.6**	**182.2**	**38,880**	**88,720**
Oklahoma	118.3	122.8	126.5	22,400	10,100
Texas	239.0	249.9	266.7	66,500	19,700
SOUTHERN PLAINS	**357.3**	**372.7**	**393.2**	**88,900**	**29,800**
Montana	67.2	68.2	68.8	20,200	12,020
Idaho	56.7	57.1	57.2	16,600	13,320
Wyoming	20.0	22.1	23.4	6,600	3,240
Colorado	63.4	63.0	62.8	21,310	6,140
New Mexico	23.9	24.6	25.1	7,950	3,060
Arizona	15.3	16.6	17.4	5,380	520
Utah	21.7	23.3	24.3	6,900	2,420
Nevada	6.0	6.5	6.8	1,600	610
MOUNTAIN STATES	**274.2**	**281.4**	**285.8**	**86,540**	**41,330**
Washington	64.7	69.2	71.2	17,300	23,140
Oregon	54.4	61.2	59.3	22,400	26,200
California	134.6	147.9	155.2	67,000	32,500
PACIFIC	**253.7**	**278.3**	**285.7**	**106,700**	**81,840**
TOTAL	**3,349.9**	**3,426.7**	**3,477.0**	**901,000**	**1,319,000**

[1]Includes engines used for stationary work such as irrigation, auxiliary engines on combines, balers, etc., and a small number of power units not elsewhere classified.

THE DIESEL PROTECTORS

Dahl removes virtually 100% of the water and solid contaminants from diesel fuel. Factory filters cannot keep the fuel clean. Dirty diesel fuel lessens performance and service life of diesel engines.

INSURE YOUR DIESEL INJECTION SYSTEM WITH A DAHL FUEL FILTER/ WATER SEPARATOR

MODEL 200 MODEL 100

DAHL

Diesel Fuel FILTRATION/ SEPARATION SYSTEMS

TRUCKING AUTOMOTIVE INDUSTRIAL MARINE

THE PROVEN PERFORMERS FOR ALL DIESEL ENGINES

Dahl offers a complete line of diesel filtration, recycling, and blending systems.

Contact us for your local Dahl Distributor

DAHL MFG., INC., 2521 Railroad Ave., P.O. Box 5, Ceres, CA 95307
(209) 538-1122 TELEX 364412 INTR

Write In (15) on Reply Card

EQUIPMENT ON CANADIAN FARMS, 1981

Item	All Canada	Four Maritime Provinces**	Quebec	Ontario	Manitoba	Sas-katchewan	Alberta	British Columbia
Total number of farms	318,361	12,941	48,144	82,448	29,442	67,318	58,056	20,012
Tractors, total	657,606	21,077	92,809	178,041	67,342	145,362	124,214	28,761
20-49 pto hp	263,308	11,266	48,633	89,290	24,215	37,555	36,116	15,962
50-99 pto hp	268,117	8,334	38,288	71,440	27,588	60,424	51,933	10,110
100-149 pto hp	90,725	1,250	4,605	13,776	11,066	33,555	24,492	1,981
150 pto hp and over	35,726	227	1,283	3,535	4,472	13,828	11,673	708
Combines, self-propelled	114,530	1,379	5,386	17,615	16,309	39,001	33,430	1,410
Combines, pull-type	46,580	853	1,490	7,519	6,322	20,703	9,233	460
Swathers, self-propelled	94,292	313	4,388	8,377	13,774	32,893	32,600	1,947
Swathers, pull-type	70,316	679	3,129	4,513	10,517	34,695	,001	1,782
Balers (bales under 200 lbs)	144,661	6,706	26,964	38,048	11,927	26,860	27,951	6,205
Balers (bales over 200 lbs)	20,680	277	545	1,482	3,767	5,709	7,919	985
Forage harvesters	35,756	1,241	7,632	16,351	1,383	2,498	4,440	2,211
Total value,* other machinery and equipment	$4.657 bil.	$145 mil.	$645 mil.	$1.09 bil.	$430 mil.	$1.099 bil.	$1.040 bil.	$206 mil.
Total value,* all machinery and equipment	**$17.444 bil.**	**$453 mil.**	**$1.732 bil.**	**$3.462 bil.**	**$1.823 bil.**	**$4.917 bil.**	**$4.362 bil.**	**$693 mil.**

*Value in Canadian dollars.
**Newfoundland, Prince Edward Island, New Brunswick, Nova Scotia.
Source: Statistics Canada.

Coming soon!

I&T's PRODUCT FILE

Published annually on January 31

QUALITY & ECONOMY

of course!

Cross gives you both in a rugged little pump with lots of power. Rated a full 3000 PSI and 3600 RPM the Cross 40 Series delivers up to 17 gallons a minute and may be chain, belt or direct driven. Splined or keyed shaft and "off-the-shelf" delivery!

Dependable Hydraulics Today and Tomorrow

CROSS MANUFACTURING, INC.
100 Factory Street • Lewis, Kansas 67552
Phone (316)-324-5525

Write In (16) on Reply Card

ASSORTED SIZES OF
COTTER PINS

HPC-15 Assortment
Contains 15 plated hitch pin clips of various sizes. 10 plastic boxes per display carton.

AG Assortment
Contains 100 plain or plated pins with complete range of sizes. 10 plastic boxes per display carton.

Other assortments for tool boxes, automotive and implement repair and work shops . . . all fine sellers.

WESTERN WIRE PRODUCTS COMPANY
1415 South 18th St. • St. Louis, Mo. 63104

Write In (17) on Reply Card

RETAIL SALES OF SELECTED FARM EQUIPMENT – Jan.-Dec., 1983 and 1984(1)
(In Units)

State	Combines Self-Propelled		Corn Heads		Hay Balers(2)		Windrowers Self-Propelled: Power Units		Windrowers Self-Propelled: Total Heads		Grinder-Mixers		Shear-Bar Forage Harvesters(3)		Mower Conditioners All Types	
	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984	1983	1984
Alabama	110	89	16	23	112	101	.....	.....	.....	.....	67	41	12	12	84	91
Alaska	.....	.....	.....	.....	4	3	.....	.....	.....	.....	.....	.....	2	1	5	3
Arizona	9	45	1	1	17	33	34	46	39	56	1	1	4	9	6	4
Arkansas	365	424	3	8	131	165	.....	.....	.....	.....	49	31	10	11	234	250
California	91	78	33	38	110	131	150	159	172	180	2	1	56	37	35	22
Colorado	147	121	43	47	290	258	136	112	149	123	18	12	39	23	114	85
Connecticut	.....	.....	.....	.....	45	37	.....	.....	.....	.....	2	1	27	31	62	60
Delaware	24	33	14	22	8	13	1	.....	1	.....	3	3	2	7	11	11
Florida	29	20	5	5	56	72	.....	.....	.....	-2	8	3	13	16	57	38
Georgia	197	238	82	111	128	133	8	1	8	1	66	44	25	31	134	150
Hawaii	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Idaho	231	183	6	3	288	220	160	136	184	148	18	13	40	27	102	55
Illinois	1,417	1,424	1,342	1,297	217	236	11	4	12	6	281	140	116	103	455	417
Indiana	778	763	719	695	212	192	3	4	5	4	215	119	84	86	409	403
Iowa	1,411	982	1,323	1,115	193	171	39	22	46	23	703	288	187	105	565	517
Kansas	852	697	82	88	199	171	154	115	156	123	88	49	69	43	420	323
Kentucky	128	171	87	95	182	205	6	2	5	2	127	80	69	77	717	593
Louisiana	144	156	2	4	68	76	.....	.....	1	.....	11	6	2	2	21	28
Maine	3	1	.....	.....	48	53	1	2	1	2	1	.....	22	20	70	86
Maryland	71	96	61	82	88	75	5	5	5	6	21	19	26	36	129	104
Massachusetts	.....	.....	1	.....	48	37	.....	.....	.....	.....	.....	.....	32	24	57	58
Michigan	260	212	234	213	236	248	23	25	26	28	140	110	181	198	428	465
Minnesota	1,008	755	659	489	574	413	245	162	257	178	319	155	386	300	885	653
Mississippi	215	206	6	5	57	66	3	1	3	1	33	18	23	24	41	50
Missouri	435	444	128	141	278	298	14	22	15	16	188	118	91	44	799	879
Montana	350	191	.....	.....	123	105	179	105	213	121	38	32	17	30	111	102
Nebraska	771	531	540	405	123	71	131	109	152	130	213	84	141	84	375	235
Nevada	1	1	.....	.....	23	28	33	26	38	30	3	2	6	2	7	8
New Hampshire	.....	.....	.....	.....	45	42	.....	.....	-1	.....	.....	.....	25	20	41	57
New Jersey	8	11	2	4	39	29	.....	1	.....	1	5	9	7	6	50	50
New Mexico	3	11	.....	1	101	151	46	38	50	40	5	2	9	3	24	24
New York	49	49	58	55	460	432	38	25	40	25	67	31	419	390	787	741
North Carolina	222	247	194	218	202	221	1	1	1	1	72	43	47	50	339	351
North Dakota	682	652	49	44	34	18	319	252	368	283	82	59	67	49	161	112
Ohio	481	466	356	391	359	340	9	11	10	11	167	145	130	131	618	613
Oklahoma	257	269	6	2	263	275	74	53	83	56	61	29	16	9	520	350
Oregon	130	77	2	8	215	167	93	65	114	74	17	2	21	28	135	78
Pennsylvania	94	112	97	107	595	539	25	31	28	31	156	132	272	266	817	842
Rhode Island	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	1	.....	2	3
South Carolina	95	98	43	42	46	64	.....	.....	.....	.....	23	17	9	17	87	102
South Dakota	385	294	160	117	75	56	232	201	244	225	173	92	136	123	123	113
Tennessee	175	219	40	38	249	237	1	2	1	2	125	88	54	48	603	558
Texas	448	497	83	123	611	519	50	45	64	46	132	105	27	24	1,012	844
Utah	26	24	4	2	247	206	71	57	73	63	14	7	39	38	147	154
Vermont	1	.....	.....	2	74	55	.....	4	.....	4	.....	1	87	61	172	165
Virginia	84	92	60	68	195	167	2	2	2	2	63	47	82	105	506	545
Washington	238	157	19	16	248	210	72	53	79	64	9	1	52	28	115	110
West Virginia	3	2	5	3	79	84	.....	.....	.....	.....	9	15	24	12	128	121
Wisconsin	204	259	252	283	911	787	135	133	144	132	204	150	870	737	1,485	1,400
Wyoming	46	25	13	8	131	102	89	59	99	71	19	4	15	10	56	34
U.S. Government	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Miscellaneous(4)	73	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
TOTAL	**12,751**	**11,422**	**6,830**	**6,419**	**9,037**	**8,314**	**2,593**	**2,091**	**2,887**	**2,307**	**4,018**	**2,349**	**4,091**	**3,538**	**14,261**	**13,057**

Data released Feb. 12, 1985, Farm & Industrial Equipment Institute.
(1) Includes revisions for prior months.
(2) For making bales of under 200 lbs.
(3) Pull-type, mounted, self-propelled.
(4) Sales reported as miscellaneous are retail sales which cannot be classified by state or as U.S. Government. They include sales and dispositions that do not go through usual marketing channels such as gifts to non-profit organizations, intra-plant or company transfers, etc.

FARM WHEEL TRACTOR

RETAIL SALES BY STATE, 1981-1984

State	1981			1982			1983			1984		
	2-wheel Drive 40 PTO HP & over	4-wheel Drive	Total Tractors	2-wheel Drive 40 PTO HP & over	4-wheel Drive	Total Tractors	2-wheel Drive	4-wheel Drive	Total Tractors	2-wheel Drive	4-wheel Drive	Total Tractors
Alabama	1,738	28	1,766	1,108	14	1,122	2,325	3	2,328	2,653	10	2,663
Alaska	56	1	57	10	.....	10	78	.....	78	71	.....	71
Arizona	814	85	899	425	73	498	619	27	646	782	30	812
Arkansas	2,686	328	3,014	1,772	125	1,897	3,582	139	3,721	3,714	91	3,805
California	3,948	453	4,401	2,976	251	3,227	5,040	214	5,254	5,946	186	6,132
Colorado	982	218	1,200	634	121	755	1,188	126	1,314	1,234	106	1,340
Connecticut	175	2	177	145	2	147	491	– 2	489	618	3	621
Delaware	108	3	111	79	5	84	258	4	262	248	7	255
Florida	2,314	70	2,384	1,636	55	1,691	3,622	68	3,690	4,614	19	4,633
Georgia	2,404	28	2,432	1,821	27	1,848	3,660	6	3,666	4,655	10	4,665
Hawaii	59	7	66	37	2	39	141	.....	141	116	5	121
Idaho	1,287	264	1,551	812	197	1,009	1,013	131	1,144	1,062	117	1,179
Illinois	4,529	871	5,400	3,580	600	4,180	4,658	433	5,091	3,958	312	4,270
Indiana	2,399	396	2,795	1,807	289	2,096	2,837	197	3,034	2,801	135	2,936
Iowa	5,437	654	6,091	4,319	475	4,794	4,149	284	4,433	2,964	129	3,093
Kansas	2,646	505	3,151	2,353	515	2,868	2,575	403	2,978	2,199	342	2,541
Kentucky	3,107	43	3,150	2,609	23	2,632	3,244	21	3,265	2,945	15	2,960
Louisiana	2,525	204	2,729	1,607	66	1,673	4,143	64	4,207	3,894	48	3,942
Maine	252	7	259	242	3	245	549	1	550	615	.....	615
Maryland	563	18	581	492	14	506	1,440	17	1,457	1,683	7	1,690
Massachusetts	153	.....	153	144	1	145	517	.....	517	621	.....	621
Michigan	2,353	376	2,729	1,613	197	1,810	2,569	143	2,712	2,751	132	2,883
Minnesota	4,130	645	4,775	2,793	479	3,272	3,029	386	3,415	2,441	295	2,736
Mississippi	2,478	171	2,649	1,563	71	1,634	2,571	31	2,602	3,030	25	3,055
Missouri	3,303	266	3,569	2,531	209	2,740	3,086	118	3,204	3,036	75	3,111
Montana	936	331	1,267	754	324	1,078	861	260	1,121	677	195	872
Nebraska	2,638	252	2,890	2,337	226	2,563	2,121	168	2,289	1,598	99	1,697
Nevada	72	12	84	66	5	71	79	4	83	82	6	88
New Hampshire	135	.....	135	158	.....	158	505	.....	505	712	1	713
New Jersey	224	.....	224	249	1	250	781	1	782	1,039	1	1,040
New Mexico	344	35	379	286	14	300	421	12	433	371	19	390
New York	2,210	173	2,383	1,741	77	1,818	2,825	54	2,879	3,296	45	3,341
North Carolina	2,778	50	2,828	2,022	34	2,056	4,072	12	4,084	4,571	12	4,583
North Dakota	1,885	887	2,772	1,322	740	2,062	1,354	491	1,845	1,112	457	1,569
Ohio	2,711	343	3,054	1,975	164	2,137	3,475	128	3,603	3,887	108	3,995
Oklahoma	2,334	295	2,629	1,891	279	2,170	2,557	218	2,775	2,364	213	2,577
Oregon	1,098	113	1,211	868	84	952	1,601	56	1,657	1,705	41	1,746
Pennsylvania	1,867	56	1,923	1,575	26	1,601	3,425	24	3,449	3,717	21	3,738
Rhode Island	14	.....	14	12	.....	12	64	.....	64	85	.....	85
South Carolina	1,049	32	1,081	779	17	796	1,524	10	1,534	1,904	2	1,906
South Dakota	1,450	292	1,742	1,355	238	1,593	1,230	221	1,451	1,060	169	1,229
Tennessee	2,653	57	2,710	1,923	29	1,952	3,803	20	3,823	3,936	15	3,951
Texas	10,409	580	10,989	6,886	299	7,185	13,786	308	14,094	12,338	226	12,564
Utah	583	24	607	466	23	489	655	21	676	688	15	703
Vermont	332	6	338	245	8	253	414	1	415	509	5	514
Virginia	1,618	19	1,637	1,455	15	1,470	2,677	6	2,683	2,736	5	2,741
Washington	1,371	191	1,562	1,168	134	1,302	1,951	125	2,076	1,956	105	2,061
West Virginia	343	.....	343	325	1	326	480	1	481	525	1	526
Wisconsin	4,035	255	4,290	2,860	167	3,027	2,907	115	3,022	2,821	82	2,903
Wyoming	335	37	372	224	44	268	277	25	302	302	26	328
U.S. Government	17	.....	17	98	.....	98	4	1	5	530	.....	530
Miscellaneous	265	.....	265	234	.....	234	605	3	608	590	3	593
TOTAL	**94,152**	**9,683**	**103,835**	**70,381**	**6,763**	**77,144**	**111,838**	**5,099**	**116,937**	**113,759**	**3,975**	**117,734**

Source: Farm & Industrial Equipment Institute. Figures do not include garden tractors, motor tillers or contractors' off-highway types. Tractors under 40 pto horsepower were not reported publicly by the FIEI prior to 1983. I&T estimates retail sales of such units were 46,742 in 1980; 47,800 in 1981; and 42,000 in 1982.

NEW AGRICULTURAL WHEEL TRACTOR IMPORTS

JAN. 1981 – JUNE 1985

Number of Units

(Excludes garden tractors except as indicated in headings, footnotes.)

Nation of Origin	Under 40 HP*	40-79 HP*	80-99 HP*	100 HP and Over*	HP Not Specifically Provided*	Not Elsewhere Specified, Excl. Industrial, Incl. Garden Types**	TOTALS
Canada							
6 mos., 1985	69	38	41	321	418	362	1,249
year 1984	56	74	145	899	1,539	985	3,698
year 1983	53	59	111	718	1,191	534	2,666
year 1982	32	63	84	347	1,383	233	2,142
year 1981	73	47	121	461	1,915	153	2,770
United Kingdom							
6 mos., 1985	2,520	6,939	504	328	75	88	10,454
year 1984	4,955	16,166	2,304	1,498	72	330	25,325
year 1983	5,173	13,502	1,840	843	32	102	21,492
year 1982	546	3,195	754	156	74	284	5,009
year 1981	614	6,031	1,109	682	15	93	8,544
Japan							
6 mos., 1985	31,308	5,399	50	39	223	112	37,131
year 1984	50,723	9,347	192	122	298	18,591	79,273
year 1983	41,265	4,490	69	136	350	9,809	56,119
year 1982	37,534	3,063	13	231	774	8,101	49,716
year 1981	40,978	2,821	3	85	714	5,469	49,530
West Germany							
6 mos., 1985	484	3,198	559	322	43	120	4,726
year 1984	124	5,333	2,113	537	18	46	8,171
year 1983	97	10,570	2,747	363	6	33	13,816
year 1982	2	4,016	2,718	668	43	32	7,479
year 1981	2	6,653	2,421	750	7	8	9,841
Italy							
6 mos., 1985	116	926	85	152	11	753	2,043
year 1984	141	1,836	432	329	1	496	3,235
year 1983	152	1,598	357	236	2	2,803	5,148
year 1982	417	1,399	369	863	2	67	3,117
year 1981	767	1,839	430	341	57	116	3,559
Romania							
6 mos., 1985	157	182	.....	.....	.....	.....	333
year 1984	225	946	.....	.....	.....	.....	1,171
year 1983	271	1,166	.....	.....	.....	17	1,454
year 1982	1,101	3,317	1	1	12	14	4,446
year 1981	558	3,050	.....	1	.....	2	3,611
France							
6 mos., 1985	55	199	100	86	1	20	461
year 1984	2	213	223	755	5	74	1,272
year 1983	133	819	234	8	.....	3	1,197
year 1982	.....	19	245	11	34	.....	309
year 1981	1	48	.....	17	.....	2	68
TOTALS							
6 mos., 1985	35,013	17,310	1,375	1,272	1,096	13,448	69,514
year 1984	56,782	35,428	5,626	4,195	2,207	20,642	124,880
year 1983	47,289	34,085	5,367	2,311	1,603	13,406	104,061
year 1982	39,764	15,858	4,190	2,378	2,366	8,739	73,295
year 1981	44,208	21,012	4,084	2,339	2,714	5,858	80,215

Others in 1984: Czechoslovakia, 758; Mexico, 606; U.S.S.R., 201.
Others in first half 1985: Czechoslovakia, 279; U.S.S.R., 133.
Source: U.S. Dept. of Commerce, International Trade Admin., Office of Capital Goods and International Construction.
*Excluding garden tractors. **Including garden tractors and rototillers.

DOLLAR VALUE OF FARM EQUIPMENT IMPORTS BY COUNTRY OF ORIGIN, Jan., 1980-June, 1985 (In thousands)

Country	Jan.-Dec. 1980	Jan.-Dec. 1981	Jan.-Dec. 1982	Jan.-Dec. 1983	Jan.-Dec. 1984	Jan.-June 1985
Canada	$820,500	$706,276	$487,286	$453,551	$576,583	$227,137
Mexico	9,080	9,699	11,349	18,563	10,099	3,018
Brazil	1,002	1,064	4,780	6,424	11,395	7,706
Sweden	4,456	2,784	3,023	2,873	4,002	2,225
Denmark	5,703	4,690	4,910	5,856	7,670	4,687
Netherlands	15,407	13,626	13,924	32,831	46,912	18,936
United Kingdom	215,932	153,589	93,806	163,678	217,201	109,657
Belgium	67,188	50,393	25,730	23,691	27,697	16,321
France	51,488	41,695	30,804	41,333	72,605	36,053
West Germany	236,578	197,110	169,087	248,015	223,651	117,822
Hungary	10,155	9,329	7,564	2,404	11,665	2,952
Czechoslovakia	NA	NA	1,113	1,892	5,888	3,764
Romania	11,611	12,598	15,461	6,088	4,701	1,364
Italy	94,794	100,853	95,092	99,219	152,409	71,019
Spain	5,559	3,561	6,541	2,946	7,124	2,178
Israel	3,218	2,777	2,677	2,988	4,183	3,779
New Zealand	6,665	8,630	9,792	11,885	11,220	5,992
Australia	4,366	7,306	4,662	3,209	4,568	2,089
Japan	189,753	202,000	181,056	204,818	309,757	179,773
China (Taiwan)	1,573	2,562	2,913	3,617	5,175	2,999
China (P.R.C.)	100	86	1,381	1,949	3,113	1,404
TOTAL	**$1,773,033**	**$1,549,799**	**$1,179,734**	**$1,347,483**	**$1,729,402**	**$830,109**

Source: U.S. Dept. of Commerce, International Trade Administration, Office of Capital Goods and International Construction.

Clevis Pins, Hairpin Cotters and Clips, Cotterless Pins, Lynch Pins, Bushings, Hitch Pins, Expanpins, Machinery Keys, Keystock and much more. Over 3800 different types and sizes to meet your design requirements. Available from stock!

Your "In Stock" Company

medalist

Rein Leitzke

P.O. Box 305, Hustisford, WI 53034

Call Toll Free, Day or Night
800/558-9535
In Wisconsin 800/242-7761

THOMCAT

Write In (19) on Reply Card

Pioneer Model DS-12V
Battery Powered PORTA-STROBE

Ideally suited for a wide range of industrial, institutional and educational applications. Sturdy and compact, it can be operated for visual and digital measurement of rotary, reciprocating or linear motions. Adjustment also allows viewing the action in slow motion to study interacting parts. Can also be used as a remote electronic digital tachometer for direct measurement of RPM (speed) without special reflective tape or markings. RPM results are updated and recorded approx. every half second on a 5-digit LED display. Can also be operated on 120V 60Hz AC line. Speed range 0 to 12,000 RPM with accuracy to 1 RPM.

VISUALLY STOPS MOTION

MEASURES RPM WITHOUT CONTACT

Write In (20) on Reply Card

VISIBLE LIGHT BEAM MAKES AIMING EASY

INSTANT RPM READOUT
Pioneer Model 36
TACHOMETER

NO WIRES • NO CONNECTIONS
MEASURES SPEEDS UP TO 12,000 RPM
ACCURACY TO ±2% FULL SCALE

Self contained, Pioneer Tachometers are easy to use. Hold like a flashlight, point at rotating object, press a button and get an instant reading on the dial. No contact necessary.
IMMEDIATE DELIVERY

THE PIONEER
ELECTRIC & RESEARCH CORPORATION
743 Circle Avenue • Forest Park, Illinois 60130 / Phone 312/771-8242

Write In (21) on Reply Card

IMPORTS OF FARM EQUIPMENT BY PRODUCT

Product	Jan.-Dec., 1983 Quantity	Jan.-Dec., 1983 Value in Thousands of Dollars	Jan.-Dec., 1984 Quantity	Jan.-Dec., 1984 Value in Thousands of Dollars	Jan.-June, 1985 Quantity	Jan.-June, 1985 Value in Thousands of Dollars
Knives & Cutting Blades	5,043,704	$ 7,957	10,337,480	$ 8,785	6,822,155	$ 5,854
Plows & Listers	2,669	5,174	2,184	5,479	1,685	1,858
Cultivators & Weeders	17,201	18,844	16,517	17,711	10,322	8,556
Parts of Plows, Cultivators, Weeders & Listers	.....	21,750	.....	30,732	.....	17,752
Harrows, Rollers, Stalk Cutters, Soil Pulverizers	26,784	4,826	23,383	7,956	21,587	5,662
Parts of Harrows, Rollers, Stalk Cutters, etc.	.....	13,548	.....	19,777	.....	6,527
Planting, Seeding & Fertilizing Machinery	30,517	31,923	38,908	31,376	27,311	13,639
Parts of Planting, Seeding & Fertilizing Machinery	.....	9,703	.....	10,716	.....	4,952
Haying Machinery other than Mowers	7,281	10,948	6,614	11,411	5,844	7,991
Mowers except Lawn Mowers	10,469	19,319	14,711	31,079	10,332	19,109
Harvesting Machines, NES	7,974	81,975	10,520	82,393	6,252	38,757
Parts of Harvesting Machines	.....	44,635	.....	57,903	.....	31,744
Farm Wagons & Carts	3,939	5,339	3,041	4,148	2,226	2,735
Agricultural Machines & Implements, NES	.....	96,978	.....	122,054	.....	69,285
Parts of Agricultural Machines, NES	.....	60,073	.....	81,670	.....	43,578
Tractors, Agricultural, Wheel-Type, New, excluding Industrial*	104,061	678,073	124,880	819,028	69,514	372,444
Tractors, Agri., Used	3,548	26,786	5,457	40,525	3,701	24,376
Parts for Agri. Tractors	.....	203,547	.....	323,003	.....	147,594
Walk-Behind Rotary Tillers	NA	NA	NA	NA	2,267	920

Source: U.S. Dept. of Commerce, International Trade Administration, Office of Capital Goods and International Construction.
NES – Not elsewhere specified.
*Use of the term "Industrial" here is understood to refer to such machines as forklifts but not to industrial tractors as commonly defined in the farm and industrial equipment industry.

In Just 9½ Minutes My Video Tape Sales Program Shows You How to Solve

• Cash flow problems • Slow sales
• High inventories • Low profitability

"I've been in the farm machinery business for years and I know these are tough times. Sales are slow, inventories high, profitability seems a word from the past and you have cash flow problems.

"That's the way it will stay if you do nothing. However, if you want to get back on track my video tape sales program provides a step-by-step method.

"My sales program tells you how to:

1. Get a guaranteed 1-hour appointment with a farmer.
2. How to qualify prospective customers.
3. How to present an acceptable sales proposition.
4. How to sell servicing & parts after the sale of equipment.
5. How to develop customer loyalty."

"This is a nuts & bolts program that works. For an investment of $69.50 and 9½ minutes of your time you'll have the formula for creating sales."

Beta or VHS

Important:
when ordering specify Beta or VHS.
Send $69.50 (check or money order) to

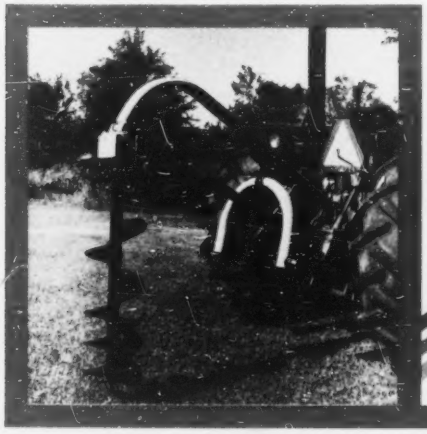
Gus McCarty
Farm Machinery, Inc.
1660 Stony Ridge, Eugene, Oregon 97405

Write In (22) on Reply Card

FARM EQUIPMENT EXPORTS BY TYPE OF PRODUCT

Product	Jan.-Dec., 1983 Quantity	Jan.-Dec., 1983 Dollar Value in Thousands	Jan.-Dec., 1984 Quantity	Jan.-Dec., 1984 Dollar Value in Thousands	Jan.-June, 1985 Quantity	Jan.-June, 1985 Dollar Value in Thousands
Combines, pull-type	934	22,487	1,073	26,609	438	9,268
Combines, self-propelled	2,882	125,377	3,603	161,082	2,354	100,184
Cultivators, tractor-drawn or mounted	3,636	5,874	3,282	6,941	1,494	3,671
Cultivators, NEC, and Weeders	2,504	3,804	2,758	7,671	2,379	3,338
Farm Elevators and Blowers	1,802	5,888	1,304	4,340	668	1,843
Farm Wagons and Carts	1,660	3,137	1,590	2,750	448	1,227
Parts for Farm Wagons and Carts	.....	2,459	.....	1,543	.....	558
Fertilizing Machines	6,711	17,266	4,421	15,120	2,355	7,210
Forage Harvesters	2,014	25,833	1,841	23,772	1,024	12,812
Harrows, Disk	5,208	17,879	2,294	12,941	1,076	4,810
Harrows, NEC, & Soil Pulverizers	6,244	6,897	6,215	6,448	2,978	2,834
Parts for Harrows, Stalk Cutters & Soil Pulverizers	.....	4,454	.....	5,547	.....	6,952
Harvesting Machines, NEC	5,200	42,927	5,767	80,120	3,269	39,541
Harvesting Machine Parts	.....	114,069	.....	140,082	.....	65,503
Hay Balers	5,160	36,603	5,567	37,181	2,736	20,263
Haying Machines, NEC (incl. rakes & tedders)	3,925	16,823	3,620	20,398	1,749	10,436
Parts for Haying Machines	.....	25,109	.....	24,011	.....	8,113
Mowers, Cutterbar, tractor-drawn	958	2,870	1,317	4,015	807	1,756
Mowers, Rotary, tractor-drawn (excl. lawn mowers)	5,891	5,029	11,187	7,076	5,302	3,750
Mowers, NEC, tractor-drawn (excl. lawn mowers)	1,335	3,861	1,888	7,448	1,103	4,052
Planting Machines	4,504	5,785	6,766	10,085	2,442	5,500
Plows, Disk	784	1,996	1,173	2,724	496	1,156
Plows, Moldboard	2,203	6,612	2,372	7,246	865	2,942
Plows & Listers, NEC	5,304	10,914	3,813	10,285	1,854	5,909
Parts for Plows, Listers, Cultivators & Weeders	.....	17,774	.....	19,746	.....	5,247
Seeding Machines	12,363	26,889	14,262	26,692	6,066	10,785
Parts for Planting, Seeding & Fertilizing Machines	.....	16,821	.....	22,186	.....	8,258
Farm Tractors:						
Under 40 PTO HP	637	3,299	660	3,407	283	1,586
40-59 PTO HP	502	4,774	629	6,174	412	4,718
60-79 PTO HP	600	8,721	882	13,084	483	4,232
80-99 PTO HP	727	16,340	989	23,318	653	12,978
100-119 PTO HP	1,440	46,764	842	23,918	354	9,752
120-139 PTO HP	2,263	80,365	1,781	62,957	823	29,685
140-159 PTO HP	1,240	46,586	1,439	53,560	581	22,421
160-179 PTO HP	1,211	53,807	1,472	65,856	640	31,388
180 HP & Over	1,989	117,916	2,380	150,476	978	62,732
Other Farm Tractors	1,724	15,494	1,414	17,939	482	9,590
Parts for Farm Tractors	.....	585,095	.....	672,613	.....	281,406

Source: U.S. Dept. of Commerce, International Trade Admin., Office of Capital Goods and International Construction.
NEC – Not elsewhere counted or classified.



GREEN MANUFACTURING, INC.
P.O. BOX 408, 419-352-9484
BOWLING GREEN OHIO 43402-0408

THE GREEN ADVANTAGE:
SATISFACTION

Over 50,000 satisfied customers know you can depend on Greenline Post Hole Diggers to stand up to even the toughest demands.

- The Greenline EM-5000 post hole digger – our newest and most popular model for all round dependability.
- For heavy duty jobs, try the new Greenline XL-6000 digger – a real workhorse.
- The Greenline JR-4000 digger is ideal for smaller tractors.

Quality, Reliability and Affordability . . . all backed up by Green Manufacturing's 30 years of experience. When it comes to post hole diggers, all you need to know is that it's a Greenline.

Green Manufacturing, Inc. P.O. Box 408, Bowling Green, Ohio 43402-0408 (419) 352-9484

Write In (23) on Reply Card

WE'VE GOT YOUR NUMBER

When you need to replace a bearing, seal or drive belt WE'VE GOT YOUR NUMBER

The International Bearing Interchange (I.B.I.) Guide cross-references 24,231 ball and roller bearings in 346, 228 listings, including world-wide manufacturers, OEM and government part numbers since 1918. ($100 + $3.50 postage & handling)

The International Seal Interchange (I.S.I.) Guide covers 11,024 seals in 132,078 listings. The International Drive Belt Interchange (I.D.B.I.) Guide references 5,466 belts in 98,235 listings. (Each $75.00 plus $3.50 postage & handling)

Order now by phone, mail or telex

INTERCHANGE INCORPORATED

P.O. Box 16012-A St. Louis Park, MN 55416
Phone: 612-929-6669 Telex: 29-1081

Write in (24) on Reply Card

Drastically cut cost of replacing hydraulic tips

Stor-Tip

Protect tips from dirt and moisture when farm implements are not in use.

- Diminishes costly hydraulic repairs caused by contamination.
- Reduces cost of tip replacements
- Mounts easily to implement frame
- Stackable for multiple hydraulic lines
- Easy, one-hand operation

Dealers—contact your farm equipment representative

Snap-tite INC.
Quick Disconnect Division
Union City, PA 16438

Write in (25) on Reply Card

VALUE OF U.S. FARM EQUIPMENT EXPORTS BY COUNTRIES OF DESTINATION

(Value in thousands of dollars)

Country	1983	1984	Jan.-June 1985
Western Hemisphere			
Canada	$852,317	$891,074	$424,920
Mexico	45,610	113,912	125,782
Guatemala	2,719	3,610	1,714
Honduras	3,200	5,890	1,745
Nicaragua	5,446	7,296	4,554
El Salvador	2,372	3,661	886
Costa Rica	3,083	6,306	2,470
Panama	3,797	2,704	1,273
Trinidad	4,064	2,544	990
Dominican Republic	6,142	5,545	2,460
Colombia	16,778	16,191	6,388
Jamaica	3,511	4,398	1,544
Venezuela	19,045	23,904	10,935
Brazil	9,048	16,423	7,855
Argentina	9,792	10,136	2,553
Bolivia	790	3,636	1,278
Chile	3,517	5,581	1,711
Ecuador	5,886	6,858	6,095
Peru	7,100	7,052	2,405
Europe			
Denmark	1,969	2,467	1,138
Sweden	8,760	9,066	1,900
United Kingdom	65,761	68,267	30,040
Netherlands	10,143	7,586	3,651
Belgium	55,046	53,832	11,377
France	97,761	89,374	32,341
West Germany	76,414	67,436	25,239
Hungary	13,203	10,955	8,390
Switzerland	2,844	3,204	1,823
Spain	7,871	10,986	5,464
Italy	6,660	8,610	4,626
Greece	7,416	22,295	8,343
U.S.S.R.	16,075	12,546	12,033
Middle East			
Israel	15,181	16,958	8,697
Kuwait	1,446	1,691	1,502
Saudi Arabia	307,795	257,307	52,778
Jordan	1,641	3,664	1,372
Asia and Pacific			
India	4,037	2,959	512
Thailand	3,247	2,650	1,336
Singapore	12,731	13,100	2,672
Indonesia	5,440	3,795	458
Sri Lanka	5,397	7,674	2,132
China (P.R.C.)	1,791	16,894	1,009
Philippines	3,432	4,045	1,060
Korea	5,098	5,236	1,955
Japan	20,001	20,196	10,826
Australia	97,970	214,075	68,723
New Zealand	5,489	5,293	1,540
Africa			
Algeria	6,917	5,133	2,337
Libya	3,276	19,687	12,754
Sudan	10,081	4,498	1,033
Nigeria	1,668	2,538	1,923
Egypt	13,092	11,436	9,516
Rep. South Africa	57,023	59,537	14,997
Total U.S. Exports, Farm & Industrial Equipment	**$2,014,069**	**$2,235,014**	**$982,284**

Source: U.S. Dept. of Commerce, International Trade Admin., Office of Capital Goods and International Construction.

USE I&T's HANDY REPLY CARD

FDO Survey Report

Dealers and Their Associations

■THE BEST thing about a dealer association convention is the chance to talk shop informally with other dealers, according to the For Dealers Only survey in the August issue of I&T.

The least favored activity was hearing presentations of annual reports by association officers.

A total of 65 dealers responded to the survey, and all but three said they belong to their state, provincial or regional dealer association. Twenty-nine had attended each association convention from 1980 through 1985, and another 29 had attended several conventions but not all during that span.

There must be something worth doing at conventions, because 52 of the dealers said they plan to attend next year.

The survey form, carried inside the front cover of the issue, asked the dealers to rank the importance of various traditional convention activities, and the clear winner was an item about "Informally 'talking shop' with other dealers"—given top ranking by 34 of the 42 dealers who correctly marked up that section of the survey.

The results of that dealer rating is carried in the accompanying table—and might provide some guidance for convention planning committees. I&T

How Dealers Rate Convention Activities

Dealers specified the importance to them of these activities, assigning numbers corresponding to highest, neutral and lowest importance.

Activity	Highest	Neutral	Lowest
Professional speaker to motivate, inspire, raise morale	24	11	5
Panels of fellow dealers on management and related topics	25	12	2
Workshops by specialists in fields such as accounting, management, computers, selling skills, marketing, etc.	29	12	0
Talks by representatives of equipment manufacturers	9	20	12
Presentation of annual reports by association officers	1	10	30
Informally "talking shop" with other dealers	34	4	3
Exhibits by equipment manufacturers	7	19	16

When It Comes To Farm Implement Parts— Beall Covers The Field.

Beall Manufacturing is a major domestic supplier of high-quality precision-engineered agricultural implement parts—standard or custom-made—to fit OEM specifications. All Beall products are backed by years of manufacturing experience.

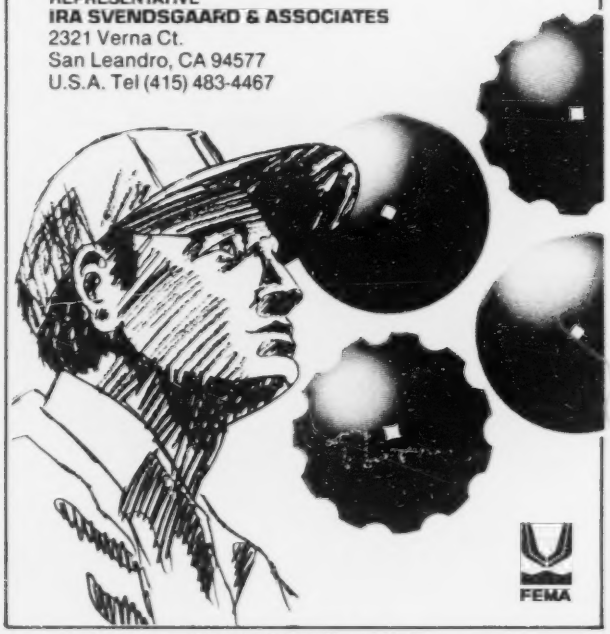
Whether you need tines or teeth, sweeps or shanks, check with Beall *first.*

(618) 259-8154

Write In (36) on Reply Card

SUCCESSFUL FARMERS USE napier grasslands DISC BLADES

REPRESENTATIVE
IRA SVENDSGAARD & ASSOCIATES
2321 Verna Ct.
San Leandro, CA 94577
U.S.A. Tel (415) 483-4467



Write In (37) on Reply Card

AUCTION PRICES OF USED EQUIPMENT

An exclusive I&T monthly report of actual prices paid recently at these leading national wholesale auctions.

Asterisk beside tractor price indicates highest bid offered on tractors which were not sold.

JONES FARM EQUIPMENT CO.
Dothan, Alabama
September 10, 1985

DEUTZ TRACTOR
3006 diesel, (Good) 2500*

MASSEY-FERGUSON TRACTORS
2675 diesel, 1979 (Fair) 6000
1130 diesel, 1971 (Fair) 2700
1105 diesel, 1973 (Good) 3900*
1085 diesel, 1976 (Fair) 2750*
285 diesel, 1975 (Good) 6800
165 diesel, 1969 (Rough) 2200
165 diesel, 1968 (Fair) 2600
165 diesel, 1968 (Good) 3100
165 diesel, 1967 (Rough) 2150
165 diesel, 1967 (Good) 3100
165 diesel, 1966 (Good) 3100*
135 diesel, 1967 (Fair) 1900
65, 1967 (Good) 2000*
35, 1960 (Good) 1500

FORD-FERGUSON TRACTOR
9N, 1942 (Rough) 540

FORD TRACTORS
7700 diesel, 1979 (Good) 7500
7700 diesel, cab, duals, 1979 (Good) 7750*
6600 diesel, 1975 (Good) 4000
5000 diesel, 1970 (Fair) 3550
5000 diesel, 1970 (Fair) 3500
5000 diesel, 1968 (Rough) 2300
4600 diesel, 1976 (Good) 3700*
4100 diesel, 1970 (Good) 3800
4000 diesel, 1974 (Excellent) 4750
4000 diesel, 1973 (Excellent) 4200
4000 diesel, 1967 (Good) 3350
4000 diesel, 1966 (Fair) 2800
4000 diesel, 1966 (Rough) 2300
4000 diesel, 1966 (Rough) 2000*
3000 diesel, 1968 (Good) 3000
3000 diesel, 1968 (Good) 3150
3000 diesel, 1968 (Good) 2900
3000 diesel, 1967 (Good) 3000
3000 diesel, 1966 (Rough) 2200
3000 diesel, 1966 (Rough) 1950
3000 diesel, 1966 (Rough) 2200*
2000 diesel, 1967 (Good) 2600
2000 diesel, 1967 (Good) 2550*
2000 diesel, 1966 (Fair) 2300*
741, 1958 (Good) 1200
641, 1958 (Fair) 1425
8N, 1952 (Fair) 1200
8N, 1952 (Good) 1500
8N, 1951 (Good) 1375
8N, 1948 (Rough) 775
8N, 1948 (Fair) 950

INTERNATIONAL HARVESTER TRACTORS
2410 diesel, (Good) 2500
784 diesel, cab, 1979 (Excellent) 5850
784 diesel, cab, 1978 (Good) 5000
784 diesel, cab, 1978 (Good) 4750*
784 diesel, 1978 (Good) 5100*
684 diesel, cab, 1978 (Good) 4850
684 diesel, cab, 1978 (Good) 4875
674 diesel, 1977 (Good) 4300
674 diesel, cab, 1977 (Excellent) 5300
674 diesel, 1977 (Excellent) 5000
674 diesel, 1976 (Good) 3900
674 diesel, 1973 (Good) 3900
674 diesel, 1973 (Fair) 3700
574 diesel, cab, 1976 (Good) 3750
574 diesel, 1975 (Good) 4300
574 diesel, 1975 (Good) 3900
574 diesel, 1975 (Good) 3900
454 diesel, 1973 (Good) 4300
444 diesel, 1968 (Rough) 1500
444 diesel, 1967 (Fair) 2200
444 diesel, 1967 (Rough) 1500*
B414 diesel, 1963 (Good) 1600*
350, 1957 (Fair) 625
300, 1955 (Fair) 825*
B275 diesel, 1960 (Good) 1300*
184 diesel, 1977 (Fair) 2300
Hyd 84 diesel, 1979 (Good) 4700
Cub Loboy, 1958 (Fair) 1400*
Cub, mo., 1949 (Good) 1500*

JOHN DEERE TRACTORS
4440 diesel, cab, 1978 (Excellent) 16,000*
4240 diesel, 1979 (Excellent) 11,000*
4020 diesel, 1966 (Fair) 3500
3130 diesel, cab, (Good) 4650
2640 diesel, 1978 (Excellent) 6000
2520 diesel, 1970 (Good) 5100*
2130 diesel, cab, (Good) 4000*
2130 diesel, cab, (Good) 4000*
2030 diesel, 1974 (Good) 4600*
2030 diesel, 1974 (Good) 4300
2030 diesel, 1972 (Fair) 3550
2020 diesel, 1965 (Good) 3450
2010 diesel, 1965 (Good) 1400
1120 diesel, (Good) 3500*
1120 diesel, (Fair) 3000
1020 diesel, 1966 (Good) 2825
1010 diesel, 1961 (Rough) 750
MT, 1951 (Good) 725

OLIVER TRACTORS
1365 diesel, 1975 (Fair) 2350*
550 diesel, 1961 (Good) 1800*

YODER & FREY, INC.
Archbold, Ohio
September 10, 1985

JOHN DEERE TRACTORS
A, 1952 (Rough) 370
B, 1942 (Rough) 310
GP, ... 675
B, 1949 (Fair) 1525
MT, ... 450
70, 1955 (Rough) 775*
70, 1954 (Fair) 1050*
730, 1958 (Good) 2000*
2020, 1972 (Good) 4775*
2440 diesel, 1979 (Good) 9500*
2840 diesel, 1978 (Good) 7500*
3020 diesel, 1964 (Good) 3600*
4010, 1964 (Fair) 3800
4020 diesel, 1965 (Good) 6000*
4020, 1967 (Good) 3700*
4020 diesel, 1965 (Good) 6100*
4020, 1966 (Good) 3000*
4020, 1967 (Good) 5750*
4020, 1965 (Rough) 2450*
4020, 1967 (Good) 2800
4230, 1974 (Good) 7900*
4320, 1972 (Good) 11,000*
4430, 1976 (Good) 12,100*
4440, 1980 (Excellent) 17,750*
4520 diesel, 1969 (Rough) 4900*
4630, 1975 (Good) 7000*
5020 diesel, 1969 (Fair) 3600
5020 diesel, 1970 (Fair) 3500

OLIVER TRACTORS
77, 1950 (Fair) 390*
77, 1952 (Fair) 375*
1650, 1966 (Fair) 2550
1755, 1973 (Good) 3900
1850, 1969 (Fair) 2100*
1855 diesel, 1973 (Fair) 3400*
1955 diesel, 1973 (Fair) 4800
1955 diesel, 1973 (Fair) 4100*
1955 diesel, 1972 (Good) 3700*
2255, 1973 (Fair) 5200*

CASE TRACTORS
400, 1957 (Fair) 1025*
730, 1965 (Fair) 1850
830, 1966 (Rough) 1250*
830 diesel, 1966 (Rough) 1000*
930 diesel, 1966 (Rough) 575*
1170, 1971 (Rough) 2400*
1170, 1971 (Rough) 4500*
990, 1962 (Rough) 1600*
1200 diesel, 1970 (Fair) 2400

MINNEAPOLIS-MOLINE TRACTOR
G-900, 1968 (Rough) 1800*

INTERNATIONAL HARVESTER TRACTORS
C, cult., 1950 (Fair) 750*
Cub, mo., (Rough) 850*
Cub, 1950 (Rough) 800*
Cub, 1947 (Fair) 590
H, 1948 (Rough) 450*
H, 1942 (Fair) 400
MTA, 1950 (Fair) 600
M, 1949 (Fair) 350
M, 1949 (Fair) 510
M, 1948 (Fair) 625*
M, 1950 (Fair) 800*
M, 1946 (Fair) 650
Sup. M, 1952 (Fair) 710
230, 1957 (Fair) 1050*
350, ldr., (Rough) 725
400 diesel, 1957 (Rough) 550
400, 1957 (Rough) 410
450, 1950 (Rough) 550
460, 1959 (Rough) 775*
504, 1965 (Fair) 1575*
560, 1958 (Rough) 1300*
560, diesel, 1960 (Fair) 1500*
560, 1962 (Fair) 1600*
560, 1962 (Fair) 900*
656, 1970 (Fair) 3300*
656, 1970 (Fair) 2900
656, 1969 (Fair) 4000
624, (Rough) 2000
674, (Good) 7400*
706, 1964 (Fair) 1825
706, 1965 (Fair) 3200*
806, 1965 (Fair) 3750*
826, 1970 (Good) 3800*
856, 1968 (Rough) 3000*
966, 1973 (Fair) 4450
986, 1979 (Good) 11,000*
1066 diesel, 1974 (Fair) 5200
1066 diesel, 1975 (Fair) 5250*
1066 diesel, 1975 (Rough) 4300*
1206, 1965 (Fair) 4100*
1466, 1975 (Fair) 6500*
1466, 1972 (Good) 6500*
1466, 1973 (Fair) 5000
1466, 1972 (Good) 7200*
1486, 1974 (Good) 6100*
1486, 1973 (Good) 6000*
4556, 1979 (Fair) 13,500*
4366, 1975 (Good) 7750*
4100, (Rough) 3000*

DEUTZ TRACTOR
D 4506, 1972 (Fair) 1960

COCKSHUTT TRACTOR
1550, 1965 (Fair) 2600*

FORD TRACTORS
8N, 1950 (Rough) 600*
8N, 1949 (Rough) 690
8N, 1951 (Rough) 425*
9N, 1944 (Fair) 1250
9N, 1946 (Fair) 925*
9N, 1943 (Fair) 1900*
860, 1955 (Rough) 1600*
3000, 1965 (Fair) 2450
3000, 1965 (Fair) 2700*
3000, 1965 (Rough) 1600
3000, ldr., 1967 (Fair) 3950
4000, 1972 (Good) 3600*
5000, 1970 (Fair) 5000*
5000, 1966 (Rough) 3000*
5000, 1965 (Fair) 3600*
6000 diesel, 1961 (Rough) 1325

FERGUSON & MASSEY-FERGUSON
35, 1963 (Fair) 1975*
50, 1963 (Rough) 1550*
50, 1958 (Fair) 1825
50, ldr., 1962 (Rough) 1250*
65, 1960 (Fair) 1350*
65, 1965 (Rough) 1375
165, 1967 (Rough) 2300
165, 1970 (Fair) 2700
165, 1970 (Rough) 2400*
165, 1967 (Fair) 3100*
180, 1972 (Good) 4000*
180, 1969 (Rough) 2475
1155, 1977 (Fair) 4750*

ALLIS-CHALMERS TRACTORS
C, 1948 (Fair) 600*
WD, 1948 (Fair) 575
WD, 1949 (Fair) 600*
WD-45, 1952 (Rough) 275
D-14, 1960 (Fair) 1275*
D-15, 1967 (Fair) 2200*
D-17, 1967 (Fair) 1900*
D-21 (Fair) 2450*
190XT, 1969 (Fair) 3000*
190XT, 1968 (Fair) 4000*
200, 1972 (Good) 5500*
7000, 1976 (Fair) 6300*
7030, 1976 (Fair) 4550*
7060, 1976 (Fair) 6900*

WHITE TRACTORS
2-60, (Rough) 4100
2-85, 1976 (Fair) 7000*
2-105, 1976 (Fair) 7000*
2-135 diesel, 1975 (Fair) 7500*